



CENTRAL ASIAN JOURNAL OF THEORETICAL AND APPLIED SCIENCES

Volume: 04 Issue: 12 | Dec 2023 ISSN: 2660-5317
<https://cajotas.centralasianstudies.org>

The Role and Significance of Alternative Energy Sources in the Implementation of Reforms in the Field of Green Economy in Uzbekistan

Umurkulov Shakhzodbek
Fergana polytechnic institute

Received 4th Oct 2023, Accepted 6th Nov 2023, Online 27th Dec 2023

Abstract: The article covers the basics of small business and entrepreneurship, the rational use of energy resources. The impact of green energy on the environment and the stages of development of green energy in modern Uzbekistan. Saving electricity and other non-renewable energy resources. Using renewable energy sources implements the increase.

Keywords: Electric energy, hybrid, technology, hydrocarbon, green energy.

The Uzbekistan Small Business Consulting Program was designed to support small companies that are able to improve their operations and grow their business by engaging experienced consultants, using ETTB grant subsidies to cover part of the cost of such services. developed. “Green” energy-saving technologies, digitalization, and women’s entrepreneurship are priority areas.



Ambient irrigation technology.

Currently, the growth of the planet's population, the development of production and household appliances have led to a significant increase in energy demand [1]. Analyzes and reports show that the current global demand for electricity consumption is increasing at a rate of 2.45% per year, which in turn means that hydrocarbon-based energy sources will dominate the global economy in the next decade. shows that he cannot provide. Currently, the development of the electric power industry using hybrid and controllable renewable energy sources is becoming a global practice, and on this basis production volumes are constantly increasing.

In world experience, the use of mixed and controlled renewable energy sources is one of the priorities of energy security, saving natural resources and effectively solving the electricity problem [2]. The goal of developing software for monitoring the energy consumption of manufacturing enterprises is to improve the use of renewable energy sources integrated with centralized energy supply, continuous monitoring of energy devices and increasing their efficiency based on the use of IOT technology, the quantity and indicators of active and reactive energy used, regular remote and local efficiency control. devices, improvement of the control system based on new software, methods and technologies, creation of a monitoring system [3]. Changing the energy produced, centralized use of various energy sources operating when switched on and not connected to the power grid, improving the description of energy devices, developing and applying, in appropriate cases, measures to replace them with modern ones, measuring the amount and parameters of electrical energy consumed by buildings and equipment based on the development modern software and hardware systems and the introduction of increased energy efficiency through automatic regulation. As a result of the creation of a system for remote monitoring of hybrid energy sources, development and implementation of a database for collecting, processing and evaluating data, as well as software in the format of their presentation, there was a need to predict and provide energy sources that can be identified, the causes of interruptions can be found and they can be quickly eliminated [4].

Software for studying the output parameters of a power system based on renewable energy sources and The experimental model of the simulation stand was used in production practice, the use and practical application of renewable energy sources for the power supply system at facilities in the information and telecommunications sector and other sectors of the economy. The creation of a user-friendly structure and application in production, the creation and experimental application of software for continuous monitoring and control of energy sources will create an opportunity for research, and on this basis, greater economic efficiency will be achieved. ETTB is also supporting Uzbekistan in the development of wind energy projects with a total capacity of 1050 MW. A tender has now been announced for the construction of a 100 MW wind power plant in Karakalpakstan. About 75 companies and organizations are interested in participating in the project.

During his visit to the Syrdarya region on November 16 of this year, the President got acquainted with two large hydropower projects and announced the launch of the project. Getting energy from water is cheaper and more durable than getting energy from other forms. In this regard, water-saving technologies are important. Production As a result of the development of technological processes, the demand for water-saving technologies is growing. In total, from 2016 to 2023, water-saving technologies were introduced on 1.20 million hectares of land (or about 33% of agricultural arable land). It includes technologies such as drip irrigation, sprinkling, discrete irrigation, elastic pipe, irrigation; over the years, 630 thousand hectares of land have been leveled with the help of a laser.

References

1. Ибрагимова, З. К. К., Хамдамова, Н. С. К., Умуркулов, Ш. Х. У., & Сабиров, Д. Р. У. (2022). Подготовка питьевой воды из маломощных поверхностных водоисточников. Central Asian Research Journal for Interdisciplinary Studies (CARJIS), 2(Special Issue 4), 77-83.
2. OBIDOV J., UMURQULOV S. O 'ZBEKISTON YASHIL IQTISODIYOT SOHASIDA ISLOHOTLARNI AMALGA OSHIRISHDA MUQOBIL ENERGIYA MANBALARINING O 'RNI VA AHAMIYATI // Bulletin of Contemporary Studies. – 2023. – Т. 1. – №. 3. – С. 15-18.
3. Abdukarimov, B.A., Tillaboyeva F. Sh, va A.T.A'zamjonov. «QUYOSH SUV ISITISH KOLLEKTOR ISILIK QUVURLARIDAGI GIDRAVLIK JARAYONLARNI HISOBLSH». *Ekonomi va sotsium* 4-1 (107) (2023): 4-10.
4. qizi Tillaboyeva, F. S. (2023). QUYOSHЛИ SUV ISITGICH KOLLEKTORLARINING ISSIQLIK ALMASHINUVI HISOBI. GOLDEN BRAIN, 1(31), 156-162.
5. qizi Tillaboyeva, F. S. (2022). QUYOSH KOLLEKTORLARI. QUYOSH KOLLEKTORLARINING TURLARI VA KOMPONENTLARI. *INTERNATIONAL CONFERENCE ON LEARNING AND TEACHING*, 1(6), 255-258.J
6. Orzimatov, S Qurbonova. Using membrane ultrafiltration equipment for drinking water disinfection // Tom 1, Science and Innovation 2022/11/13
7. J.T. Orzimatov. Analysis of the prospects for the use of energy-efficient active solar devices in uzbekistan // American Journal of Applied Science and Technology, Tom 2, 2022/6/30
8. Yu K Rashidov, JT Orzimatov, K Yu Rashidov, ZX Fayziev. The method of hydraulic calculation of a heat exchange panel of a solar water-heating collector of a tube–tube type with a given nonuniform distribution of fluid flow along // Tom 56, Applied Solar Energy 2020/1
9. Yu K Rashidov, JT Orzimatov. Solar air heater with breathable matrix absorber made of metal wire tangle // Tom 5, Scientific-technical journal 2022.
10. Azizovich, N. I. (2022). On The Accuracy of the Finite Element Method on the Example of Problems about Natural Oscillations. *European Multidisciplinary Journal of Modern Science*, 116-124.
11. Nasirov, I. (2022). АКТУАЛЬНОСТЬ ПРИМЕНЕНИЯ МЕТОДОВ МАТЕМАТИЧЕСКОГО МОДЕЛИРОВАНИЯ И МЕТОДОВ КОНЕЧНЫХ ЭЛЕМЕНТОВ В СТРОИТЕЛЬСТВЕ. *Science and innovation*, 1(A7), 711-716.
12. Носиров, И. А. (2022). МОДЕРНИЗИРОВАНИЕ КОНСТРУКЦИЙ ТУРБОДЕФЛЕКТОРОВ. *CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES*, 3(12), 126-130.
13. Nosirov, A. A., & Nasirov, I. A. (2022). Simulation of Spatial Own of Vibrations of Axisymmetric Structures. *European Multidisciplinary Journal of Modern Science*, 107-115.
14. Madaliev, E., Madaliev, M., Mullaev, I., Sattorov, A., & Ibrokhimov, A. (2023, March). Numerical simulation of the layer mixing problem based on a new two-fluid turbulence model. In *AIP Conference Proceedings* (Vol. 2612, No. 1). AIP Publishing.
15. Isroiljonovich, M. I. (2022). USE OF HEAT INSULATION MATERIALS IN HEAT NETWORKS. *CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES*, 3(12), 184-189.

16. Israiljonovich, M. I. (2022). HEAT-TECHNICAL CALCULATION OF THE SOLAR COLLECTOR. *CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES*, 3(12), 115-120.
17. Mullaev, I. (2022). IMPROVING THE EFFICIENCY OF THE SOLAR-AIR HEATING DEVICE. *Science and Innovation*, 1(7), 756-761.
18. Madaliyev, E., Makhsitalayev, B., & Rustamova, K. (2022). IMPROVEMENT OF SEWAGE FLATS. *Science and innovation*, 1 (A7), 796-801.
19. Madaliyev, E., & Maksitaliyev, B. (2022). A NEW WAY OF GETTING ELECTRICITY. *Science oath innovation*, 1 (A7), 790-795. Akramovna, U. N., & Ismoilovich, M. R. (2021). Flow Around a Plate at Nonzero Cavitation Numbers. *Central Asian Journal of Theoretical and Applied Science*, 2(12), 142-146.
20. Umurzakova, M. A., Usmanov, M. A., & Rakhimov, M. N. (2021). ANALOGY REYNOLDS PRI TECHENIYAX AND DIFFUZORNO-CONFUZORNYX KANALAX. *Economics and society*, (3-2 (82)), 479-486.
21. Abbasov, Y., & Usmanov, M. (2022). CALCULATION OF THEIR POWER AND HEATING SURFACE IN IMPROVING THE EFFICIENCY OF AIR HEATING SYSTEMS. *Science and innovation*, 1 (A7), 738-743.
22. Abbasov, YS, Abdulkarimov, BA, & Ugli Usmanov, MA (2022). Optimization of Working Parameters of Colorifiers used in Heat Supply Systems. *Central Asian Journal of Theoretical and Applied Science*, 3 (6), 399-406.
23. Maksudov, RI, Dehkanov, SS, & Usmanov, MA (2023). THERMAL INSULATION MATERIALS AND DETERMINATION OF THEIR OPTIMAL THICKNESS. *Economics and society*, (4-1 (107)), 151-157.
24. Abbasov, Y. _ S., & ugli Usmanov, M. _ A. _ (2022). Design of an Effective Heating System for Residential and Public Buildings. *Central Asian Journal of Theoretical and Applied Science*, 3 (5), 341-346.
25. Muminov, O., & Maksudov, R. (2022). HIDROTECHNICS PREVENT VIBRATIONS THAT OCCUR IN CONSTRUCTIONS. *Science and innovation*, 1(A7), 762-766.
26. Madraximov, M. M., Abdulkhaev, Z. E., & Ilhomjon, I. (2022). Factors Influencing Changes In The Groundwater Level In Fergana. *Int. J. Progress. Sci. Technol.*, 30, 523-526.
27. Abdulkhaev, Z., Madraximov, M., Arifjanov, A., & Tashpulotov, N. (2023, March). Optimal methods of controlling centrifugal pumps. In *AIP Conference Proceedings* (Vol. 2612, No. 1). AIP Publishing.
28. Мадхадимов, Мамадали Мамадалиевич, Зохиджон Эркинжонович Абдулхаев, and Алимардон Хамдамалиевич Сатторов. "Регулирования работы центробежных насосов с изменением частота вращения." *Актуальные научные исследования в современном мире* 12-1 (2018): 83-88.
29. Madaliev, M. E. U., Maksudov, R. I., Mullaev, I. I., Abdullaev, B. K., & Haidarov, A. R. (2023). Investigation of the Influence of the Computational Grid for Turbulent Flow.
30. Abdulkhaev, Z., Abdujalilova, S., & Abumalikov, R. (2023). CONTROL OF HEAT TRANSFER ABILITY OF RADIATORS USING THERMOVALVE. *Journal of Construction and Engineering Technology*, 1(1).

31. Erkinjonovich, A. Z., Abdujalilova, S. S., Aminjonovna, A. I., Abdulazizovna, M. N., & Botyrjonovna, Y. A. (2023). Fire Prevention Using an Automatic Shut-off Valve. *CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES*, 4(8), 91-94.
32. Abdujalilova, S. S., & Zukhridinovna, R. S. (2023). MEASURING WATER CONSUMPTION IN FITTINGS. *CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES*, 4(5), 29-33.
33. Madaliyev, E., Makhsitalayev, B., & Rustamova, K. (2022). IMPROVEMENT OF SEWAGE FLATS. *Science and innovation*, 1 (A7), 796-801.
34. Madaliyev, E., & Maksitaliyev, B. (2022). A NEW WAY OF GETTING ELECTRICITY. *Science o'ath innovation*, 1 (A7), 790-795.
35. Solijonov, MV (2022). QUYOSH ENERGİYAsidan FOYDALANGAN YANGI QOYISH HAVO ISITISH PARAMETRLARINI ISHLAB CHIQISH PARAMETRLARINI OPTİMLAYTIRISH. *MATEMATİK NAZARIYA VA INFORMATYA FANLARI MARKAZIY ASIAN JURNALI*, 3 (12), 190-197.
36. Abdukarimov, BA, Solijonov, MV, & Abdumalikov, RR (2023). AN'VANSIY VA QAYTA OLiladigan ENERGIYA MANBALARI ASOSIDA ISHLAB CHIQISH ISILIK TA'MINLANISH TIZIMLARINI TADQIQOT. *OLTIN MIYA*, 1 (1), 253-255.
37. Abdukarimov, A., Solijonov, M., & Abduxamidov, A. (2022). QUYOSH ENERGIYASIDAN FOYDALANISHDA YANGI SOLAR HAVO ISITISHLARNING ISHLATILISH PARAMETRLARINI OPTİMLAYTIRISH. *Fan va innovatsiyalar*, 1 (A8), 815-823.
38. Qosimov A. S., Srojidinov D. R. AVTOPOEZDLAR TORMOZ MEXANIZMLARI PNEVMATIK QUVIRLARINING TEXNIK HOLATINI, AVTOPOEZDLARNING MOS TURIGA TADBIQ QILISH //Educational Research in Universal Sciences. – 2023. – T. 2. – №. 3. – C. 474-480.